Lab #4. GenderMag - 1

Due Date: Listed on Canvas, 30 Points

(This is theoretical assignment / essay. Should be submitted all in 1 PDF)

Contents

While majority of Professional Developers in the IT world self-identify as men [1] (as an example, 92% of all Stack Overflow 2022 survey respondents and 93% of professional developers participated in the survey did) as future industry professional we must ensure that the Software products we develop are **<u>inclusive</u>**. We must consider that the software we write is / will be used by people with different backgrounds, of different age / **gender** / ethnicity groups and from different countries, etc.

The ***GenderMag*** study is devoted to finding and fixing ***GenderMag bugs*** – those situations when due to the way the software written according to the Developer's own mind: their information processing styles and their attitude and learning style, etc., some personas **might feel uncomfortable with the way it is built** (precisely, we are talking about the User Interface that the users interact with), have difficulty learning it and at time reluctant to use it at all if there is a more familiar way to perform their task or solve their problem. Refer to the following personas description and to the **open educational resources**[2] to understand the three personas of **Abi**, **Pat** and **Tim**.

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[1] https://insights.stackoverflow.com/survey/2021#demographics-gender-prof

[2] http://gendermag.org/foundations.php

You can as well **watch YouTube** videos listed in the footnotes[34].

According to the previous studies most of Abi personas are female (but not all), majority of Tim personas are male (but not all). We need to understand that this study is not about who you are or personally identify with, but about fixing the GenderMag bugs (accessibility bugs with the focus on personas) and as all other bugs such bugs needs to be found and fixed to the best of our ability as eventually everyone will benefit from inclusive software accessible for all that comes as a result of this study: such software require less time to learn, becomes intuitive and easy to use, there will be less burden on Customer Service to deal with potential issues (in a corporate world) and eventually will have less maintenance cost, and as a best current industry practice GenderMag and its mastery can be shared with colleagues or mentioned on job interviews).

Abi (Abigail/Abishek)

Motivation: Uses technology to accomplish their tasks.

Computer Self-Efficacy: Lower self-confidence than peers about doing unfamiliar computing tasks. Blames themselves for problems, which affects whether and how they will persevere.

Attitude Toward Risk: Risk-averse about using unfamiliar technologies that might require a lot of time.

Information Processing Style: Comprehensive.

Learning by Process vs. Tinkering: Process-orientated learning.

Abi represents users with motivations/attitudes and information/learning styles similar to them. For data on people similar to and different from Abi, see http://gendermag.org/foundations.php

Pat (Patricia/Patrick)

Motivation: Learns new technologies when they need to.

Computer Self-Efficacy: Medium confidence doing unfamiliar computing tasks. If a problem can't be fixed, they will keep trying.

Attitude Toward Risk: Risk-averse and doesn't want to expend time when they might not receive benefits.

Information Processing Style: Comprehensive.

Learning by Process vs. Tinkering: Likes to explore and purposefully tinker.

Pat represents users with motivations/attitudes and information/learning styles similar to them. For data on people similar to and different from Pat, see http://gendermag.org/foundations.php

Tim (Timara/Timothy)

Motivation: Likes learning all the available functionality on all their devices

Computer Self-Efficacy: High confidence in technical abilities. If a problem can't be fixed, blame goes to software vendor.

Attitude Toward Risk: Doesn't mind taking risk using features of technology.

Information Processing Style: Selective information processing

Learning by Process vs. Tinkering: Likes tinkering and exploring.

Tim represents users with motivations/attitudes and information/learning styles similar to them. For data on people similar to and different from Tim, see http://gendermag.org/foundations.php

Assignment preparation (do this in advance)

Watch the YouTube video about GenderMag to understand the method: https://youtu.be/6HYvp5GrPjU

You can find additional resources (articles, presentations, etc. if you want to research more)

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[3] https://www.youtube.com/watch?v=6HYvp5GrPjU&t=37s
[4] https://www.youtube.com/watch?v=IBR-M_oZGoc&t=14s

Task 1. **Using http://gendermag.org/foundations.php research on Abi persona, and their assets. Create a custom Abi – you can keep in mind some possible "Abies" you are familiar with / know very well (someone who you think have a similar personality, Abi's processing style and other assets): http://gendermag.org/customizer.php?persona=Abi . Print the persona and analyze the result. Attach result screenshots to your assignment. Write a small paragraph about your experience with the customizer tool. Did it help you to understand the GenderMag? Did it bring you close to Abi?**
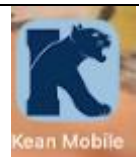
> ***Keep in mind the following:*** Abi is well-educated and smart, they just do not have much time to go into each and every detail and spend a lot of time with the software, but they still perform their job well and make right choices in their situation.

Task 2. **A) Research on Pat and Tim persona and examine the differences between the GenderMag personas. Do you think it is enough to use Abi, Pat and Tim for inclusivity evaluation or more personas might be needed? You can propose your own persona if you think more personas might be needed.**
B) Discuss GenderMag and your findings with your teammates. You can state who you identify with most if you feel comfortable and have an answer to this question. Write a small summary. State if you have the same understanding and opinion on Abi's persona and their assets as your peers and if not describe the difference.

> **GenderMag Assignment represents a <u>sequence of steps</u> performed to accomplish each subgoal and eventually the task the person is trying to solve here. Your answer should include <u>screenshots / steps taken by the persona on the way to perform the tasks</u> and brief comments explaining what was done and why. Result – if / if not the persona accomplished their goal after all and why / why not. If any GenderMag bugs / system flaws or other programmatical, accessibility or ethics issues were found – describe them in detail and suggest what fix is needed.**

Scenario 1:

> Abi was just accepted to Kean University. They want to register for classes but are unfamiliar with the way course registration at Kean works, their laptop is not yet arrived and therefore they will have to register for classes through Kean Mobile app. They found the credentials provided to them by the university in an email and start their registration journey from the Kean University's **download-kean-mobile-app-today** page by themselves[5].

Subgoal 1. To register for the courses Abi, needs to find and log in into the system used by Kean University students to register for courses.

Task 3. **Use your own phone and your own credentials. Take screenshots all the way until Abi accomplishes this subgoal (if they do.) Add a short comment**
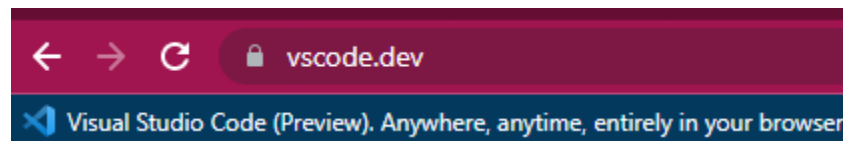
explaining Abi motivation to tap / click / zoom in/out the page/ etc. Proceed with the Abi Persona to accomplish this subgoal until its accomplished or Abi gives up. Follow with the same approach page by page, screen by screen, button by button until Abi accomplish their subgoal (if they do). Think like Abi. What they would do. *You can cover sensitive information like student ID, username, financial details, etc. on your screenshots. Explain why Abi will / will not succeed with this subgoal.* **Report any GenderMag / Accessibility / Software bugs and inconsistencies (if any) found during this part of the assignment**. The very last sentence of this part should state: Abi succeeded with/ failed to accomplish this subgoal. ***Your assignment should consist of a sequence of screenshots that have some highlights/circled areas and small comments/notes associated with them.***

Subgoal 2. If Subgoal 1 was accomplished successfully Abi needs to register for the Spring II free elective 3000+ online course. They will have to filter out many other courses to narrow down the options and decide which course to take.

Task 4. **Proceed with the same approach (with taking screenshots). Report any GenderMag / Accessibility / Software bugs and inconsistencies (if any) found during this part of the assignment.** You can stop as closer to the actual registration as possible claiming that at this point Abi just do that now and that's it…. Or cannot do anything and will not register by themselves… The very last sentence of this part should state: Abi succeeded with/ failed to accomplish this subgoal.

Task 5. **Provide your feedback /a small summary of your experience with the first scenario. What do you think Pat and Tim would do differently?**

Scenario 2:

Tim's PC got broken and they borrowed a temporary laptop from OCIS. They cannot install any software on it. (no such permission). They are registered for CPS*3500 Programming WWW server course and must do a lot of work for it: follow ABC tasks discussed in class, work in groups, submit their homework. Tim might decide to explore a brand-new software VSCode.Dev[6] (which is an online version of VSC) but or might choose another tool. Tim might decide to use their smartphone instead. Anyway, Tim will need to create some original (not copy-pasted) snippets of HTML/CSS/Bootstrap & Flex code and push it all (or upload if push is not possible) to GitHub. They start their journey from the tool's home page.

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[6] https://vscode.dev/

Subgoal 1*. **To complete the assignment Tim needs to connect to GitHub and test if working with GitHub allowed for them (or choose another tool if not).***

Task 6. **Proceed with the same approach (with taking screenshots). Report any GenderMag / Accessibility / Software bugs and inconsistencies (if any) found during this part of the assignment. <u>Think like Tim</u>**. What they would do. **Report any GenderMag / Accessibility / Software bugs and inconsistencies (if any) found in the software during this part of the assignment.** You need to state if Tim succeeded / failed with accomplishing this subgoal and why.

Subgoal 2. If Subgoal 1 was accomplished successfully Tim needs to create some code (not just a single Web page with "Hello world" but a page linked to some additional resources like images, .CSS, and / or PDF files).

Follow with the same approach with taking screenshots. If Tim needs to research on some additional actions (open blogs/tutorials/ watch YouTube videos) add them to the task. **Report any GenderMag / Accessibility / Software bugs and inconsistencies (if any) found during this part of the assignment.** The very last sentence of this part should state: Tim succeeded with/ failed to accomplish this subgoal.

Task 7. **Collaborate with your teammates to accomplish Scenario 2. It might be too difficult to accomplish the TASK by yourself and all your skills combined can overcome this potential issue.**

Extra point part. 10 EXTRA points.

Scenario 3:

> **Pat just developed the first draft of their Personal portfolio/website. Pat was assigned to deploy it on eve or any other public live server (so the website can be accessed from any device like smartphone or tablet from anywhere on the Web). Pat wants to try Heroku.com as a possible host. They chose the very first / top YouTube tutorial on this and start their journey from where: https://www.youtube.com/watch?v=DQk3zJlY-eE. Report on Pat's experience with the extra point assignments and Heroku document any GenderMag bugs they encountered.**
>
> *Hint: it looks like HEROKU changed their policy of providing completely free hosting. You do not have to pay for anything to accomplish this assignment. You can find any other platform that does not require a payment or use a free trial to deploy your website and then stop it.*